

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for the determination of a value for the physiological production of adrenomedullin (AM) in a human in a healthy normal or pathological state ~~the mid-regional partial peptide of proadrenomedullin (mid-proAM) in a biological fluid sample from a human~~, comprising measuring the level in ~~said biological fluid sample of said human, instead of a value for such production of AM itself, a value for production of said mid-proAM~~ the mid-regional partial peptide of proadrenomedullin (mid-proAM) which consists of the sequence of SEQ ID NO: 3, wherein said measuring uses a monoclonal or polyclonal antibody which in each case is specific to said partial peptide.
2. (Previously Presented) The method according to claim 21, wherein the mid-proAM in the biological fluid is measured in an immunoassay wherein at least one antibody is employed which specifically recognizes a sequence of mid-proAM and said antibody is labeled.
3. (Previously Presented) The method according to claim 2, wherein said immunoassay using said at least one labeled antibody is an assay further employing a solid phase-bound competitor for the mid-proAM or a sandwich assay further employing at least one additional antibody which specifically binds to a different partial sequence of mid-proAM (SEQ ID NO: 3) from that bound by said at least one labeled antibody.
4. (Previously Presented) The method according to claim 21, wherein the level of circulating mid-proAM (SEQ ID NO: 3) is determined and the biological fluid is plasma or serum.

5. (Previously Presented) The method according to claim 3, wherein both antibodies bind to a region of mid-proAM which extends from the amino acid 60 to the amino acid 94 of preproadrenomedullin.

6. (Previously Presented) The method according to claim 3, wherein all said antibodies are monoclonal and/or polyclonal.

7. (Previously Presented) The method according to claim 3, wherein all said antibodies are affinity-purified polyclonal antibodies.

8. (Currently Amended) The method according to claim 3, wherein for said sandwich assay, one of the antibodies is obtained by immunization of an animal with an antigen which contains a synthetic peptide sequence which consists of~~comprises~~ the amino acids 69-86 of pre-proAM (SEQ ID NO: 4), and the other of the antibodies is obtained by immunization with an antigen which contains a synthetic peptide sequence which consists of~~comprises~~ the amino acids 83-94 of pre-proAM (SEQ ID NO: 5).

9. (Previously Presented) The method according to claim 3, wherein for said sandwich assay, one of the antibodies is labeled and the other antibody is bound to a solid phase or is not bound to a solid phase but can be subsequently bound thereto during the assay.

10. (Previously Presented) The method according to claim 3, wherein for said sandwich assay, both said at least one labeled antibody and said at least one additional antibody are present dispersed in a liquid reaction mixture and a first labeling component which is part of a labeling system based on fluorescence or chemiluminescence extinction or amplification is bound to said at least one labeled antibody, and a second labeling component of said labeling system is bound to said at

least one additional antibody so that, after binding of both antibodies to the mid-proAM to be detected, a measurable signal which permits detection of the resulting sandwich complexes is generated.

11. (Previously Presented) The method according to claim 10, wherein the labeling system comprises cryptate emission in combination with a fluorescent or chemiluminescent dye.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Previously Presented) The method according to claim 21, wherein said determination is carried out in the course of a multiparameter determination for diagnosis of cardiac disease in which further parameters relevant for cardiac diagnosis are also determined.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) A method for the determination of a value for the physiological production of adrenomedullin (AM) in a human in a healthy normal or pathological state the mid-regional partial peptide of proadrenomedullin (mid-proAM) in a human, comprising measuring the level in a biological fluid sample of said human, instead of a value for such production of AM itself, a value for production of

the mid-regional partial peptide of proadrenomedullin (mid-proAM)said mid-proAM
which consists of the sequence of SEQ ID NO:3, wherein said measuring uses a
monoclonal or polyclonal antibody which in each case is specific to an epitope in said
partial peptide.

20. (Previously Presented) The method of claim 1 wherein said measuring is not
accomplished using a competitive radioimmunoassay.

21. (Currently Amended) A method for the determination of a value for the
physiological production of adrenomedullin (AM) in a human in a healthy normal or
pathological statethe mid-regional partial peptide of proadrenomedullin (mid-proAM)
in a human, comprising measuring the level in a biological fluid sample of said
human, instead of a value for such production of AM itself, a value for production of
the mid-regional partial peptide of proadrenomedullin (mid-proAM)said mid-proAM
which consists of the sequence of SEQ ID NO:3, wherein said measuring is by
immunoassay which is not a competitive radioimmunoassay.

22. (Currently Amended) A method for the determination of the value for the
physiological production of adrenomedullin (AM) in a human in a healthy normal or
pathological statethe mid-regional partial peptide of proadrenomedullin (mid-proAM)
in a human, comprising measuring the level in a serum or plasma sample of said
human, instead of a value for such production of AM itself, a value for production of
the mid-regional partial peptide of proadrenomedullin (mid-proAM)said mid-proAM
which consists of the sequence of SEQ ID NO:3, wherein said measuring is of the
circulating level of said mid-proAM circulating in the blood of a patient from whom
said sample is taken.

23. (Canceled)

24. (Canceled)

25. (Currently Amended) A method for the determination of a value for the physiological production of adrenomedullin (AM) in a human in a healthy normal or pathological state—the mid regional partial peptide of proadrenomedullin (mid-proAM)—in a human, comprising measuring the level—in a biological fluid sample of said human, instead of a value for such production of AM itself, a value for production of the mid-regional partial peptide of proadrenomedullin (mid-proAM)—said mid proAM— which consists of the sequence of SEQ ID NO:3, wherein said measuring is by antibody sandwich assay employing at least two antibodies specific to epitopes in said partial peptide sequence.

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Previously Presented) The method of claim 19 wherein said measuring is not accomplished using a competitive radioimmunoassay.

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Currently Amended) A method for the determination of a value for the physiological production of adrenomedullin (AM) in a human in a healthy normal or pathological state the mid-regional partial peptide of proadrenomedullin (mid-proAM) in a human, comprising measuring the level in a biological fluid sample of said human, instead of a value for such production of AM itself, a value for production of peptide bound by an antibody specific to the mid-regional partial peptide of proadrenomedullin (mid-proAM) said mid-proAM, wherein said mid-proAM consists of the sequence of SEQ ID NO:3.

36. (Previously Presented) A method of claim 35 wherein said measuring is by antibody sandwich assay.

37. (Previously Presented) A method of claim 35 wherein said antibody is monoclonal.

38. (Canceled)

39. (Canceled)

40. (Previously Presented) The method of claim 22 wherein said measuring is not accomplished using a competitive radioimmunoassay.

41. (Previously Presented) The method of claim 16 wherein said measuring is not accomplished using a competitive radioimmunoassay.

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Previously Presented) A method of claim 1 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

46. (Previously Presented) A method of claim 19 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

47. (Previously Presented) A method of claim 21 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

48. (Previously Presented) A method of claim 22 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

49. (Previously Presented) A method of claim 25 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

50. (Canceled)

51. (Previously Presented) A method of claim 16 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

52. (Canceled)

53. (Canceled)

54. (Canceled)

55. (Previously Presented) A method of claim 35 wherein said measuring comprises contacting said sample with an antibody which binds to said mid-proAM forming an antibody-mid-proAM complex.

56. (Canceled)

57. (Canceled)

58. (Previously Presented) A method of claim 1 further comprising removing from a human said sample to be measured.

59. (Canceled)

60. (Previously Presented) A method of claim 21 further comprising removing from a human said sample to be measured.

61. (Previously Presented) A method of claim 22 further comprising removing from a human said sample to be measured.

62. (Previously Presented) A method of claim 25 further comprising removing from a human said sample to be measured.

63. (Previously Presented) A method of claim 16 further comprising removing from a human said sample to be measured.

64. (Canceled)

65. (Canceled)

66. (Canceled)

67. (Canceled)

68. (Previously Presented) A method of claim 35 further comprising removing from a human said sample to be measured.

69. (Canceled)

70. (Canceled)